

~~12.~~ <sup>A</sup> (Twice Amended) The method of claim 11, wherein the nucleoside, nucleotide or amino acid is protected by a photosensitive protecting group and said energy source includes light.

~~15.~~ <sup>1</sup> An ordered method for forming a plurality of different polypeptides or nucleic acids occupying known locations on a substrate by sequential addition of nucleosides, nucleotides or amino acids to said substrate, comprising:

(a) providing a substrate having a surface with a localized area occupied by a protected nucleoside, nucleotide or amino acid;

(b) deprotecting the protected nucleoside, nucleotide or amino acid in a fraction of the localized area to produce a deprotected nucleoside, nucleotide or amino acid ;

(c) reacting the deprotected nucleoside, nucleotide or amino acid with a protected nucleoside, nucleotide or amino acid, whereby the protected nucleoside, nucleotide or amino acid attaches to the deprotected nucleoside, nucleotide or amino acid to produce a protected nucleic acid or polypeptide; and

(d) repeating (b) and (c) at least once wherein the fraction in step (b) is a fraction of a fraction in a previous deprotecting step (b) to produce an array of different nucleic acids or polypeptides occupying different fractions at known locations within the localized area.

16. The method of claim 12, wherein the localized area is less than 0.001 cm<sup>2</sup>.

~~17.~~ <sup>7</sup> (Twice Amended) An ordered method for forming a plurality of different nucleic acids or polypeptides occupying known locations on a substrate by sequential addition of nucleosides, nucleotides or amino acids to said substrate, comprising:

(a) providing a substrate having a surface with a localized area occupied by a protected nucleoside, nucleotide or amino acid;

(b) deprotecting the protected nucleoside, nucleotide or amino acid in a fraction of the localized area to produce a deprotected nucleoside, nucleotide or amino acid;

(c) immersing the surface of the substrate in a solution comprising a protected nucleoside, nucleotide or amino acid, whereby the protected nucleoside, nucleotide or amino acids

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10/16/01